



**INFORMATION  
DISCLOSURE  
STATEMENT**

Application #	10/657,703
Confirmation #	6086
Filing Date	September 9, 2003
First Inventor	PEBAY
Art Unit	1647
Examiner	Gamett, Daniel C.
Docket #	P08048US00/BAS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

S I R :

**This IDS is submitted pursuant to 37 CFR. §1.97-1.98 and includes the following:**

- ☒ A **listing** of the references on PTO-1449.
- ☒ A copy of all **non-US** references which are listed on the PTO-1449 (US refs not required).
- ☒ A copy of a corresponding foreign **Search Report** which explains the relevance of the references noted therein.
- ☐ A separate **explanation of relevance**.

**Please note the following particulars concerning the filing of this IDS:**

- ☒ 1. This IDS is filed at whichever is the latest of:
    - within three months of the filing date of a NATIONAL APPLICATION other than a CPA, or
    - within three months of the date of entry into the NATIONAL STAGE as set forth in 37 CFR. §1.491 in an international application, or
    - before the mailing date of a first Office Action on the merits or after filing of an RCE (*but if a first Office Action is mailed but not yet received and the date on the face of the attached foreign communication makes it evident that this IDS is submitted within three months from the mailing of the search report, then applicant is entitled to have this IDS considered under 2.B. below and such boxes should be considered as having been checked*).
  - ☐ 2. This IDS is filed **after a first Office Action**, but before a Final Action, Allowance, or any other action which closes prosecution, **and**:
    - ☐ A. Is accompanied by a payment in the amount of \$180.00 required by 37 CFR. §1.17(p).
- or
- ☐ B. I hereby state that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS.
  - ☐ C. I hereby state that no item of information in this IDS herewith was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR. §1.56(c) more than 3 months prior to the filing of this IDS.
  - ☐ D. An appropriate Statement is attached.

☐ 3. This IDS is filed **after** a final action or allowance, but on/before payment of the issue fee, and:

☐ A. is accompanied by a payment in the amount of \$180.00 required by 37 CFR. §1.17(p).

and

☐ B. I hereby state that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS.

☐ C. I hereby state that no item of information in this IDS herewith was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR. §1.56(c) more than 3 months prior to the filing of this IDS.

☐ D. An appropriate Statement is attached.

☐ 4. This IDS does not comply with 37 CFR 1.97-1.98, and is being filed **for placement in the file** pursuant to 37 CFR. §1.97(i). .

☒ 5. It will also be appreciated that:

a. It is believed that this IDS complies fully with 37 CFR 1.56 and 1.97-98 and with MPEP § 609; but if for some reason it does not and will not be entered, the examiner is requested to telephone the undersigned so that any deficiency can be timely remedied.

b. Some of the documents may have markings thereon, but no significance should be attached to those markings.

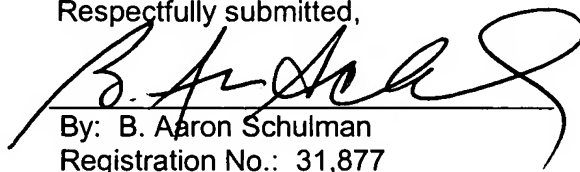
c. These documents are not necessarily analogous art.

d. Where an English language translation of an abstract is provided from a public source, applicant cannot vouch for the accuracy of that translation.

☒ 6. If no payment is enclosed and a fee is due in connection with this communication or if the payment enclosed is insufficient, the Director is authorized to charge any fee or additional fee due with this communication to Deposit Account No. 12-0555.

Respectfully submitted,

Date: March 12, 2007

  
By: B. Aaron Schulman  
Registration No.: 31,877

**STITES & HARBISON PLLC** ♦ 1199 North Fairfax St. ♦ Suite 900 ♦ Alexandria, VA 22314  
TEL: 703-739-4900 ♦ FAX: 703-739-9577 ♦ CUSTOMER NO. 00881



Customized PTO/SB/08a+b (09-06)

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>	Application #	10/657,703
	Confirmation #	6086
	Filing Date	September 9, 2003
	First Inventor	PEBAY
	Art Unit	1647
	Examiner	Gamett, Daniel C.
Sheet 1 of 3	Docket #	P08048US00/BAS

<b>U.S. PATENT DOCUMENTS</b>				
Exam. Initial*	Document No. Number - Kind	Publ. Date MM-DD-YYYY	Name Patentee or Applicant	Relevance Passages/Figs.
	US-			

<b>FOREIGN PATENT DOCUMENTS</b>					
Exam. Initial*	Country-Number-Kind	Publ. Date MM-DD-YYYY	Name Patentee or Applicant	Relevance Passages/Figs.	Trans- lation
	WO-03/094965	11-20-2003	NEURONOVA AB ET AL		

<b>NON PATENT LITERATURE DOCUMENTS</b>		
Exam. Initial*	Include NAME of the author (in CAPS), Title of Article/Item, Date, Page(s), Volume-Issue No., Publisher, City and/or Country where published	Trans- lation
	HARADA et al, "Sphingosine-1-phosphate induces proliferation and morphological changes of neural progenitor cells", 2001, BIOSIS	
	BATHURST et al, "Soy (Glycine Max)-Derived Phospholipids Exhibit Potent Anti-Apoptotic Activity", 1998, pp. 111-123, vol. 36, no. 2, Pharmaceutical Biology, Swets and Zeitlinger, Lisse, NL	
	NAM et al, "Survival of hippocapal neuroprogenitor cells by lysophosphatidic acid involves activation of cyclic AMP-response element binding protein", 2001, BIOSIS	
	PEASE et al, "Isolation of Empryonic Stem (ES) Cells in Media Supplemented with Recombinat Leukemia Inhibitory Factor (LIF)." 1990, pp. 344-352, vol. 141, Developmental Biology, Academic Press, New York, USA	
	PEBAY et al, "Essential roles of sphingosine-1-phosphate and platelet-derived growth factor in the maintenance of human embryonic stem cells." November 21, 2006, pp. 1541-1548, vol. 23, no. 10, Stem Cells (Miamisburg)	
	TAKUWA et al, "The Edg family G protein-coupled receptors for lysophospholipids: their signaling properties and biological activities" June 2002, pp. 767-771, vol. 131, no.6, Journal of Biochemistry, Japanese Chemical Society/OUP, Tokyo, JP	
	XU et al, "Feeder-free growth of undifferentiated human embryonic stem cells" October 2001, pp. 971-974, vol. 19, no. 10, Nature Biotechnology, Nature Publishing Group, New York, NY, USA	

Examiner Signature		Date Considered	
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\* Examiner: Initial if considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

Substitute for Form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

Application #	10/657,703
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Sheet 2 of 3

**U.S. PATENT DOCUMENTS**

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	US-			

**FOREIGN PATENT DOCUMENTS**

Exam. Initial*	Country-Number-Kind	Publ. Date MM-DD-YYYY	Name Patentee or Applicant	Relevance Passages/Figs.	Trans- lation
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**NON PATENT LITERATURE DOCUMENTS**

Exam. Initial*	Include NAME of the author (in CAPS), Title of Article/Item, Date, Page(s), Volume-Issue No., Publisher, City and/or Country where published	Trans- lation
	RYU et al, "Sphingosine-1-phosphate, a platelet-derived lysophospholipid mediator, negatively regulates cellular Rac activity and cell migration in vascular smooth muscle cells" 22 February 2002, pp. 325-332, vol. 90, no. 3, Circulation Research	
	BU et al, "Dihydrosphingosine-1-phosphate stimulates MMP1 gene expression via activation of ERK1/2-Ets1 Pathway in human fibroblasts" November 2005, vol. 19, no. 13, retrieved from the internet: URL: <a href="http://www.fasebj.org/cgi/reprint/05-4646fjevl.pdf">http://www.fasebj.org/cgi/reprint/05-4646fjevl.pdf</a>	
	WHETTON et al, "Lysophospholipids stimulate an increase in the motility of primitive hematopoietic cells and enhance stromal derived factor 1-induced chemoattraction" 16 November 2001, p. 73a, vol. 98, no. 11, Part 1, BLOOD and 43rd Annual Meeting of the American Society of Hematology Part 1; Orlando, FL	
	YANAI et al, "Sphingosine-1-phosphate and lysophosphatidic acid trigger invasion of primitive hematopoietic cells into stromal cell layers." 1 July 2000, pp. 139-144, vol. 96, no. 1, BLOOD	
	MEYER et al, "Sphingosylphosphorylcholine-biological functions and mechanisms of action" 23 May 2002, pp. 178-189, vol. 1582, nos. 1-3, Biochemica and Biophysica Acta. Molecular and Cell Biology of Lipids, Elsevier, Amsterdam, NL	
	JEON et al, "Role of MEK-ERK pathway in sphingosylphosphorylcholine-induced cell death in human adipose tissue-derived mesenchymal stem cells" 1 May 2005, pp. 25-33, vol. 1734, no.1, Biochemica and Biophysica Acta. Molecular and Cell Biology of Lipids, Elsevier, Amsterdam, NL	
	JEON et al, "Sphingosylphosphorylcholine induces proliferation of human adipose tissue-derived mesenchymal stem cells via activation of JNK" March 2006, pp. 653-664, vol. 47, no. 3, Journal of Lipid Research	

Examiner Signature		Date Considered	
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\* Examiner: Initial if considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

Substitute for Form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>	Application #	10/657,703
	Confirmation #	6086
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Sheet 3 of 3	Docket #	P08048US00/BAS

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<b>FOREIGN PATENT DOCUMENTS</b>					
Exam. Initial*	Country-Number-Kind	Publ. Date MM-DD-YYYY	Name Patentee or Applicant	Relevance Passages/Figs.	Trans-lation
<b>NON PATENT LITERATURE DOCUMENTS</b>					
Exam. Initial*	Include NAME of the author (in CAPS), Title of Article/Item, Date, Page(s), Volume-Issue No., Publisher, City and/or Country where published				Trans-lation
	SAITO et al, "Paf-induced Eosinophilic and Basophilic differentiation in human hematopoietic precursor cells" 1992, pp. 135-137, vol. 5, no. 2, Journal of Lipid Mediators & PAF (Platelet-activating factor) Symposium on Allergic, Respiratory and Cardiovascular diseases				
	SAITO et al, "Platelet-activating-factor-induced augmentation of production of eosinophil-lineage cells in hematopoietic precursor cells obtained from human umbilical cord blood" 1993, pp. 375-382, vol. 102, no. 4, International Archives of Allergy and Immunology				
	DUPUIS et al, "Effects of lipidic mediators on the growth of human myeloid and erythroid marrow progenitors" 1997, pp. 117-125, vol. 16, no. 3, Journal of Lipid Mediators and Cell Signaling				
	MORITA et al, "Oocyte Apoptosis is Suppressed by Disruption of the Acid Sphingomyelinase Gene or by Sphingosine-1-Phosphate Therapy: October 2000, pp. 1109-1114, vol. 6, no. 10, Nature Medicine, Nature Publishing Group, New York, NY, USA				
	SUN et al, "A new wound healing agent: sphingosylphosphorylcholine" February 1996, pp. 232-237, vol. 106, no. 2, Journal of Investigative Dermatology, New York, NY, USA				

Examiner Signature		Date Considered	
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\* Examiner: Initial if considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



Customized PTO/SB/21 (09-06)

**TRANSMITTAL FORM**

(for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b>  (for all correspondence after initial filing)	Application #	10/657,703
	Confirmation #	6086
	Filing Date	September 9, 2003
	First Inventor	PEBAY
	Art Unit	1647
	Examiner	Gamett, Daniel C.
Total number of pages in this submission =	Docket #	P08048US00/BAS

**ENCLOSURES** (check all that apply)

<input type="checkbox"/> Fees calculated below	<input type="checkbox"/> Reply to Missing Parts/Incomplete Application
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Certified Copy of Priority Document(s)
<input type="checkbox"/> including Attachment(s)	<input checked="" type="checkbox"/> Information Disclosure Statement
<input type="checkbox"/> <b>After Final</b> Amendment/Reply	<input type="checkbox"/> Drawing(s)
<input type="checkbox"/> including Attachment(s)	<input type="checkbox"/> Terminal Disclaimer
<input type="checkbox"/> Extension of Time Petition	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

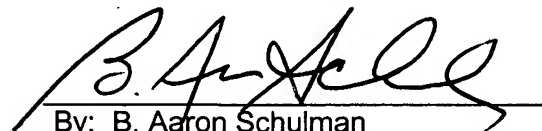
**FEES CALCULATION:** For claims if required and/or other fees as shown below:

	NOW	Previously Paid For	Present Extra	Rate	\$
<input type="checkbox"/> TOTAL CLAIMS		- 20		X \$ 50 =	
<input type="checkbox"/> INDEPENDENT CLAIMS		- 3		X \$ 200 =	
TOTAL OF ABOVE CLAIMS FEES =					
<input type="checkbox"/> Reduction by ½ for <b>small entity status</b> of applicant					
SUBTOTAL =					
<input type="checkbox"/> Fee for extension of time (per attached Petition)					
<input type="checkbox"/> Other fee for IDS					
TOTAL OF ALL FEES =					0

☐ Payment by credit card. FORM PTO-2038 in the amount of \$ is attached.☒ The Director is authorized to charge any fee, additional fee or extension fee due in connection herewith to Deposit Account No. 12-0555:

- (1) if no payment or an insufficient payment is enclosed and a fee is due in connection herewith; or
- (2) if no petition for extension of time is enclosed but an EOT is required - and in this event, applicant hereby petitions under 37 CFR 1.136(a) for an extension of time of as many months as are required to render this submission timely.

Date: March 12, 2007

  
By: B. Aaron Schulman  
Registration No.: 31,877

**STITES & HARBISON PLLC** ♦ 1199 North Fairfax St. ♦ Suite 900 ♦ Alexandria, VA 22314  
TEL: 703-739-4900 ♦ FAX: 703-739-9577 ♦ Customer No. 00881